UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,879,578 B2 DATED : April 12, 2005

INVENTOR(S) : Pan et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 3,

Line 17, after the word "each", delete " $h^{(k)}$ " and insert therefor -- $\underline{h}^{(k)}$ --.

Line 32, after the words "chip vector", delete " $\mathbf{r} \cdot \underline{\mathbf{d}}\mathbf{d}^{(k)}$ " and insert therefor -- $\underline{\mathbf{r}} \cdot \underline{\mathbf{d}}^{(k)}$ --.

Line 48, before the word "is", delete "n" and insert therefor $-\underline{n}$ --.

Column 4,

Line 3, after the word "response", delete " $\underline{\underline{h}}\underline{h}_m^{(k)}$ " and insert therefor -- $\underline{\underline{h}}\underline{h}_m^{(k)}$ --. Line 6, after the word "vector", delete " $\underline{\underline{r}}\underline{r}_m^{(k)}$ " and insert therefor -- $\underline{\underline{r}}\underline{h}_m^{(k)}$ --. Line 13, after the word "vector", delete " $\underline{\underline{r}}\underline{r}_m$ " and insert therefor -- $\underline{\underline{r}}\underline{h}$ --.

Line 25, before the words "is the", delete "rr'" and insert therefor $-\underline{r}'$ --.

Column 6,

Equation 17, delete "s=Cdd" and insert therefor -- $s=C\underline{d}$ --.

Line 6, after the word "determine", delete " \underline{s} is" and insert therefor -- \underline{s} is --.

Line 18, after the word "for", delete "s" and insert therefor -- \underline{s} --.

Line 26, after the word "for", delete "suse" and insert therefor -- s use --.

Column 7,

Line 7, after the word "multiplication", delete "R scan" and insert therefor -- Rs can --.

Line 14, before the word "is", delete " g_1 " and insert therefor -- g_i --.

Line 50, after the word "matrix,", delete "Rcir" and insert therefor -- R'cir --.

Line 53, after the word "is that", delete " g_w " and insert therefor -- g_w --.

Line 55, after the word "vector", delete "sis" and insert therefor -- s is --.

Line 58, after the word "permuting", delete "s" and insert therefor $-\underline{s}$ --.

Column 8.

Line 60, after the word "uplink,", delete "sis" and insert therefor -- \underline{s} is --.

Line 62, after the word "data", delete "das" and insert therefor -- d as --.

Line 63, after the word "downlink,", delete " \underline{s} is" and insert therefor -- \underline{s} is --.

Column 9,

Line 16, delete " $\underline{r}r_m$ " and insert therefor -- \underline{r}_m --.

Line 16, delete " $Dp\underline{h}hm$ " and insert therefor -- $D_p\underline{h}_m$ ---

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 12,

Line 24, after the word "high", delete "date" and insert therefor -- data rate --.

Signed and Sealed this

Twenty-third Day of August, 2005

JON W. DUDAS
Director of the United States Patent and Trademark Office